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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
RAMAN, USHA	
ART UNIT	**PAPER NUMBER**
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/458,319	SMYTH ET AL.	
	Examiner	Art Unit	
	USHA RAMAN	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments filed January 9th 2008 have been fully considered but they are not persuasive.

Applicant arguments (see Remarks, pages 8-9) stating that, "Day only teaches concatenating entire video segments one after another to provide seamless video to a viewer....Day does not teach or suggest the play list includes reverse and fast forward streams" and further arguments (see remarks, page 9) stating that, "DeMoney fails to bridge the substantial gap left by Day and Katinsky" because, "DeMoney does not use a playlist for the reverse and fast forward streams" have been noted. Examiner however contends that the very fact that Day teaches the step of providing VCR style functions (see Day column 5, lines 43-45) to manipulate the playback of a media would have provided a reasonable basis to one of ordinary skill in the art at the time of the invention to look into the system of DeMoney which provides an efficient stream (i.e. streams related to fast forward and reverse) switching mechanism of implementing the VCR style functionality and incorporate the elements of VCR style functionality as taught by DeMoney into the system of Day. Day also discloses that each media segment comprises attributes that can include any information describing the asset (see Day column 4, lines 17-23). Katinsky further illustrates the playlist identifying content attributes (see figure 5). As such examiner notes that both Katinsky and Day bore sufficient evidence to one of ordinary skill in the art at the time of the invention that attributes associated with a segment were identified or associated in a playlist. Within the context of DeMoney's

invention, such an attribute associated with a segment would be the information describing the trick play streams associated with the segment (e.g. the index table), wherein the information describes the entry and exit points that identify a location within the trick play stream that corresponds to a playback location in the "normal" play stream. As such, the modified system describes the recited limitations (see claims 8 and 16) of "the playlist further identifying reverse and fast forward stream associated with each one of the plurality of content streams" (i.e. in the index table, associated with the segment). Furthermore, DeMoney discloses that in the MPEG transport stream (i.e. the content stream), "*random access indicator* is set *within the transport packet header*" (see column 9, lines 25-18), wherein DeMoney further discloses that switching the output between different streams (i.e. trick play streams) only occurs at well defined random access points. See column 5, lines 47-52. The random access points therefore read on the claimed "plurality of entry and exit points" that are "identified within transport packet headers of each one of the plurality of content streams". Such random access points are crucial for the step of enabling the user to jump to the next content in a playlist while a current segment is still in progress, as described by Katinsky (see column 6 lines 19-26). Therefore it is submitted that the modified system of Day in view of DeMoney and Katinsky teach all the limitations of claims 8 and 16.

Applicant's arguments (see Remarks, page 9) stating that, "DeMoney is not the same method as applicant's invention to play rewind and fast forward streams" because "Applicant's invention utilizes *the multiple splicing entry and exit points*

within the streams and *the playlist* to play the rewind and fast forward streams" have been noted. Examiner would first like the note that claim language does not contain any limitations pertaining to "utilizing the multiple splicing entry and exit points within the playlist". The claim recites, "playlist further identifying reverse and fast forward streams associated with each one of plurality of content streams", wherein the content stream comprises a plurality of splicing entry and exit points dispersed therein. For the reasons stated above, it is submitted the modified system does in fact teach applicant's claimed "rewind and fast forward streams".

For the reasons stated above, the rejection is maintained.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 8-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Day et al. (US Pat. 5,996,015) in view of DeMoney (US Pat. 6,065,050), and Katinsky et al. (US Pat. 6,452,609).

In regards to claims 8 and 16, Day discloses an information distribution system including provider equipment (201) and subscriber equipment (203), wherein provider equipment communicates to said subscriber equipment information streams

including content requested by said subscriber equipment (see column 3, lines 10-20 and lines 43-46), comprising:

A session manager, for interacting with said subscriber equipment and maintaining a plurality of play lists (multiple data pumps service a plurality of clients by streaming data to a plurality of clients, therefore multiple play lists are generated for each of plurality clients, see column 3, lines 30-31, lines 43-47, and lines 55-58) wherein each playlist (i.e. provides stream control functions for controlling the playback of media. See column 3, lines 58-61, column 4 lines 1-2 and column 5, lines 43-45) is associated with a respective subscriber, said playlist defining plurality of content streams to be provided to the subscriber ("selected video segments", see column 6, lines 28-29). The session manager further inherently "stores" (by caching) the generated playlist at the server while the session is alive, in order to access the playlist for playback of next media clip.

A server for storing content streams (data pump 111 stores multimedia assets. See column 3, lines 43-45); and

A server controller for retrieving from said server, content streams defined by said playlist, said content streams being sequentially provided to said subscriber equipment (see column 5, lines 45-54, column 6, lines 40-50);

Day also discloses that during the playback of clips from a playlist the system determines if additional clips in the playlist are present, and in the event there are additional clips, it retrieves the additional clips and concatenates it to the current clip so that the clip maybe played seamlessly. See Day: column 6, lines 36-64.

Furthermore, while the session is active, the system checks for additional clips in the playlist, to determine if additional data needs to be retrieved. Therefore, the system also comprises the step of "continuously accessing playlist" while the session is active, in order to determine when the next clip needs to be retrieved in order to be streamed to the user.

While Day teaches controlling the playback of a content stream using VCR style functions (see column 5, lines 43-45), Day is silent on how VCR style functionalities are achieved. The system therefore is silent on the step of associating a "fast forward" and reverse stream with the content streams. The system of Day additionally lacks the step of modifying the play list in response to play list modification commands wherein the next stream in the playlist is spliced at an entry point associated with an exit pint of a current stream being sent to the subscriber equipment.

In a similar field of endeavor, DeMoney details on implementing VCR style functions. DeMoney teaches accomplishing VCR style functions by maintaining normal play stream with a look up table and associating the trick play streams (such as fast forward and fast reverse streams) with the content stream wherein the media server switches the playback from the content stream to the respective trick play stream associated with the content stream in response to trick play commands received from the user. Note column 4, lines 59-67 and column 5, lines 1-60 of DeMoney. DeMoney further discloses that switching of streams occurs only at well-defined "random-access" points (i.e. splicing points) that are identified within the

transport packet headers of the content stream. Note column 5, lines 47-52, column 9, lines 25-30. An index table contains a list of the offset points that marking the location of the random access points (i.e. the entry and exit points) for the plurality of trick play streams and content stream. During the operation of a trick play function, the media server looks for an offset in the trick play stream (i.e. an entry point in the trick play stream) that corresponds to the current output offset in the content stream and switches the playback to the trick play stream at that entry point. Note column 10, lines 31-53.

In a further analogous art, Katinsky teaches a user-friendly media player interface that initiates and manages a session with content provider (i.e. "session manager") by creating and maintaining a sequencer (play list) with content streams to be played at the subscriber equipment, where the media player further allows the user to modify the play list. Note column 3, lines 43-54 and column 4, lines 10-20 of Katinsky. Using the media player interface, the subscriber can modify the play list by adding or deleting content streams as well as skip forward and backward to a content stream to be played. Note column 6, lines 19-26 and column 2, lines 55-57 in Katinsky.

One of ordinary skill in the art would have immediately recognized that implementing the "skip" function of Katinsky as described in column 6, lines 19-26 would require content stream comprising random access points as exemplified in DeMoney to enable the exit of a current content stream prior to its end and entry to the next content stream for playback. Furthermore, Day also discloses that each

media segment comprises attributes that can include any information describing the asset (see Day column 4, lines 17-23). Katinsky further illustrates the playlist identifying content attributes (see figure 5). As such examiner notes that both Katinsky and Day provide sufficient evidence to one of ordinary skill in the art at the time of the invention that attributes associated with a segment were identified or associated in a playlist.

All the claimed elements were known in the Day, DeMoney and Katinsky references and one ordinary skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions and the combination would have yielded predictable results at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the trick play streams associated with the content streams as taught by DeMoney in the system of Day thereby providing efficient trick play functionality. Such a modification would be realized with the use of MPEG format content stream, comprising "random access points" set within the transport packet header as taught by DeMoney enabling switching of trick play streams and content stream in response to user commands. It would have been further obvious to one of ordinary skill in the art at the time of the invention to employ Katinsky's playlist modification commands for enabling user to switch between content streams in a playlist thereby providing enhanced playlist functionalities to the user. Such a modification again, would be realized with the use of MPEG format content stream, comprising "random access points" set within the transport packet header as taught by DeMoney

enabling exit of a current content stream prior to its end and entry to the next content stream for playback that is taught by Katinsky. The index file in the modified system identifying the forward and the reverse streams would be the "additional information describing the content" and as such would be identified by the playlist as an "attribute" corresponding to the content, as taught by Day and Katinsky.

In further regards to claim 16, Day further discloses that the playlist is generated at the provider equipment. See column 6, lines 14-30 in Day. Furthermore, the session manager of the modified system controls the media session in response to all the user commands, including playlist modification commands.

In regards to claims 9 and 17, the modified system of Day in view of DeMoney and Katinsky provides modification commands such as fast forward, fast reverse as well as skip forward and skip backwards commands (see column 6, lines 19-26 in Katinsky).

In regards to claims 10 and 18, the modified system of Day in view of DeMoney and Katinsky provides a session manager with "add" and "delete" functionalities that allow media objects to be added or removed from the play list. Note column 2, lines 55-57.

In regards to claim 11, the modified system of Day in view of DeMoney and Katinsky provides a session manager with skip forward and skip backward functionalities to skip to next or previous clip in the play-list. Note figure 7, reference numbers (106) and (107) and description in column 6, lines 19-26 of Katinsky.

In regards to claims 12 and 19, the modified system of Day in view of DeMoney and Katinsky provides a session manager with trick play functionalities that allow a fast reverse and fast forward stream to be associated with the content stream in response to fast forward and fast reverse commands. Note column 5, lines 25-60 of DeMoney.

In regards to claims 13 and 20, Day discloses that at a predetermined point (threshold level) prior to the end of the current data stream, an initialization process begins for the next video segment on the play list, to prepare the next data stream to be seamlessly concatenated to the end of the current data stream. Note column 6, lines 31-64 of Day. Therefore the modified system of Day in view of DeMoney and Katinsky has "termination notification" means that is communicated to the server when the current data stream reaches the predetermined point (the threshold level).

In regards to claims 14 and 21, upon reaching the predetermined point prior to the end of the current data stream, the session manage indicates to the server controller the next content stream to be provided to the subscriber equipment.

In regards to claim 15, Day shows that the multimedia files in the modified system are striped across disks of a plurality of storage servers. Note column 3, lines 15-20, lines 39-67, and column 4, lines 23-30 of Day. The data pump acts as the "transport processor", where under the control of the server controller, delivers the media assets to the subscriber equipment.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to USHA RAMAN whose telephone number is (571)272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chris Kelley/
Supervisory Patent Examiner, Art Unit 2623

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